

TALKING PAPER

SUBJECT: Briefing on the Installation Water Resources Planning System (IWRAPS)

BACKGROUND:

- o Fort Huachuca became involved with a general adjudication process in the late 1970s
- o Statement of claim filed with the State in 1981 asserting current use and projected use
- o Based on legal advise needed methodology to project water usage and provide expert testimony
- o Corps of Engineers (Institute for Water Resources) awards contract to Planning and Management Consultants, Ltd (PMCL), to apply water model, IWRAPS, at Fort Huachuca
- o PMCL conducts site visit in August 1992 to collect data for IWRAPS
- o PMCL provides outcome of IWRAPS in the Final Draft of the Water Requirements at Fort Huachuca Military Reservation in March 1993

DISCUSSION:

- o Methodology of IWRAPS
 - oo The system produces forecasts that reflects needs based upon disaggregated water use among building category sectors
 - oo Based on the category sectors the system produces both winter and summer predications as a function of building square footage, weather inputs, irrigation, and other special purpose water needs, such as, mobilization and BRAC
- o Objectives of IWRAPS
 - oo Forecast water requirements for 1995, 2000, 2005, 2015, 2020, 2025 based on unrestricted use; use with conservation measures; and under mobilization conditions
 - oo Review existing water conservation program and provide forecasts of expected water savings for five conservation measures
 - oo Provide an automated water management system to run 'what if' drills

- o Expectations of IWRAPS
 - oo Obtain a report that quantifies the post's current water needs and forecasts showing water needs to 2025
 - oo Results that validate the post's claimed future water requirement of 10,522 acre-feet (ac-ft)
 - oo A means to evaluate effectiveness and prioritize conservation measures
 - oo Obtain an automated system capable of modifying forecasts based on change in missions - 'what if' drills
- o Results and achievements of expectations
 - oo The results of IWRAPS at Fort Huachuca have been received in a Final Draft report
 - oo The current through forecast years shows a decrease of water usage, under normal and mobilization conditions (2,779 ac-ft to 2,404 ac-ft and 4,558 ac-ft to 3,942 ac-ft) due to conservation measures
 - oo Under worst-case scenario mobilization conditions the current through forecast water requirement is 5,126 ac-ft
 - oo These results are presentable to the court, however, the water requirement results do not validate the post's claim for future water use
 - oo The automated system will provide a means to evaluate effectiveness of the conservation measures and provide the capability to run 'what if' drills

CONCLUSION: The report is a beneficial part of the adjudication process. The automated system provides an appropriate forecasting tool that the post planners can use to determine water uses under constantly changing scenarios. The results under IWRAPS are legitimate forecasts based on the accuracy of the information. As conservation measures are implemented, IWRAPS will provide a barometer of effected coverage and water savings.

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